

<p>2002-136772/18 A85 L03 SMSU 1999.12.08 SAMSUNG ELECTRONICS CO LTD *KR 2001054744-A 1999.12.08 1999-055695(+1999KR-055695) (2001.07.02) H01L 23/02 Fine pitch ball grid array package including beam lead with containing couple bonding part C2002-042181 Addnl. Data: CHOI G W, SONG Y H</p>	<p>A(5-J1B, 12-E7C) L(4-C17A, 4-C20A, 4-F2)</p>
<p>NOVELTY An FBGA (Fine pitch Ball Grid Array) package including beam lead with containing couple bonding part id provided to prevent badness such as electrical disconnection due to a damage of a beam lead.</p> <p>DETAILED DESCRIPTION An FBGA(Fine pitch Ball Grid Array) package(200) is composed of a semiconductor chip(110), a carbon polymer(120), a tape for FBGA(150), and an external connection terminal(160) such as a solder ball. Bonding pads(112) are formed on the active surface of semiconductor chip(110), and the carbon polymer(120) is doped. The FBGA(150) tape is attached on the carbon polymer(120). The FBGA tape(150) consists of a polyimide film(130) and beam leads(140). An open aperture(134) is made in the polyimide film(130) for loading a</p>	<p>solder ball(160), and a window(132) is built in the beam leads(140) expose a couple bonding part(142). The couple bonding part(142) is directly bonded to two bonding leads. One bonding lead(147) is directly bonded to bonding pads(112), and the other additional bonding lead(148) connected with the edges of bonding lead(147). The couple bonding part is molded using an encapsulant(170) after bonding the bonding lead(147) on the bonding pads(112).</p> <p>(1ppDwgNo.1/10)</p>